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SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/758,090	GALLAGHER ET AL.
	Examiner	Art Unit	
	Brent S. Stace	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 January 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>24 January 2007</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1.   This communication is responsive to the amendment dated January 24th 2007.

In the amendment dated January 24th 2007, Claims 1-20 are pending, Claims 1-6, 9-11,

and 20 are amended, and Claims 1 and 9-11 are the independent Claims. The

examiner notes that no new matter was introduced. This action is made FINAL.

Response to Arguments

2.   Applicant's arguments filed January 24th 2007 with respect to Claims 1-20 have

been fully considered but they are not persuasive.

3.   As to Applicant's arguments with respect to Claims 1-20 for the prior art(s)

allegedly not teaching or suggesting "retrieving a set of attributes based on the type of

the item and a partial structured query language statement corresponding to the

attributes," the examiner respectfully disagrees. SQL statements follow a structure

according to what they do. For instance, a basic example of retrieving data has a

SELECT statement that includes a column name(s) and a FROM statement that

includes table name(s) (e.g. SELECT prod_id FROM products_tbl). Sadiq, in the cited

sections, teaches that SQL is generated/prepared using/retrieving attribute/column

names from a mapping data structure in order to obtain the information needed to

generate the SQL statement. The data structure is a mapping of records to attributes

(Sadiq, col. 4, lines 2-8) that may include other information, such as table name(s) – as

described above, table name(s) is/are required for at least one type of SQL statement. As such, the table name(s) and column name(s) used to generate the SQL statement are considered a part of the SQL statement since they are required to generate at least one type of SQL statement in order to know where/how to get data. The type of item in the limitation refers to the fact that Sadiq is making a SQL statement for at least a record in a database. The item type is a record type, and attributes are retrieved based on the fact that the item type is a record. Sadiq must retrieve the correct attributes corresponding to the record since Sadiq's invention is supposedly functional. If Sadiq did not do so, the SQL statements may not execute correctly. Sadiq teaches the claimed limitations as claimed.

4.   As to Applicant's arguments with respect to Claims 1-20 for the prior art(s) allegedly not teaching or suggesting "preparing the structured query language statement for the item based on the set of attributes and the corresponding partial structured query language statements in response to the request," the examiner respectfully disagrees. As discussed above, Sadiq, generates the SQL statement, this is preparing the SQL statement for the record based on the set of record attributes and the corresponding partial structured query language statement (col. and table name(s)) in response to the request to updated a record in the database.

5.   As to Applicant's arguments with respect to Claims 4 and 20 for the prior art(s) allegedly not teaching or suggesting "retrieving at least a portion of an insert statement" and "wherein the attributes stored in the second table include a structured query language statement that inserts a new item into the first table," the examiner respectfully

disagrees. As known in the art, an SQL INSERT statement is used to add data to a database/table. As shown below, Sadiq's invention is primarily directed at generating update SQL statements for modifying data in a database/table. However, Seaman's invention dynamically generates INSERT statements for adding data to a database/table. Seaman offers the obvious advantage of being able not only to update the database (modify as in Sadiq) but update by adding (inserting) new records offering the ability to add new records with Sadiq's invention. Additionally, since Sadiq teaches that there is data in his database, the data must have been inserted at some time (using INSERT statements). The combination of the references must be considered when reading how the prior arts teach the claimed limitations.

6.   As to Applicant's arguments with respect to Claims 5 and 19 for the prior art(s) allegedly not teaching or suggesting "wherein retrieving the set of attributes and that partial structured query language statement comprises retrieving information that indicates access rights for the structured query language statement" and "wherein the attributes stored in the second table includes information indicating access rights for each type of item," the examiner respectfully disagrees. Wildermuth, in the cited sections, teaches that authentication is needed to issue commands (SQL statements) to a database system. As such, Wildermuth, when combined with Sadiq, must retrieve information indicating access rights for an SQL statement when Sadiq, for example, makes an SQL statement for record/attribute in the map table (this is indicated by the flag in Wildermuth that identifies a suitably-privileged user for accessing the system).

7.   As to Applicant's arguments with respect to Claims 6 and 12-14 for Reiner

allegedly not teaching or suggesting "the second table that the timestamp is for each

row in the second table, or that the processor selectively retrieves information for the

cache or the second table based on the timestamp," the examiner respectfully

disagrees. With regards to "the second table" limitation, Sadiq was cited as teaching

this, not Reiner. Therefore the applicant's arguments that Reiner doesn't teach it are

irrelevant. As to a timestamp for each row in the second table, Reiner, col. 7, lines 43-

64 with Reiner, col. 9, lines 27-45 were used to reject this limitation. Reiner, in the cited

sections, teaches a cache/table that also stores timestamps with each cached content.

Each piece of content has it's own timestamp since a complete exact list of

new/changed content is made. In order for Reiner to apply a timestamp to the content,

as taught in the cited sections, a timestamp must be determined. Applying this

timestamp to the invention of Sadiq's attributes etc. is supported by Sadiq, col. 4, lines

8-10 by helping the table/cache be synchronized, and using a cache data structure

would achieve the fast lookup times. As for the processor selectively retrieves

information for the cache or the second table based on the timestamp. Reiner, col. 7,

lines 43-64 with Reiner, col. 9, lines 27-45 was used in mapping this limitation. Reiner

teaches, as above, that, based on a timestamp, a list is made to list the items needed

for downloading in order to re-establish cache coherency. As taught in the cited

sections, the required data is downloaded to synchronize the cache. This is the

processor selectively retrieving data for the cache based on the timestamp of the item in

the cache.

8.   As to Applicant's arguments with respect to Claims 7, 8, and 16-18 for the prior

art(s) allegedly not teaching or suggesting "that a second package of cursors is opened

by embedded structured query language statements when all of the cursors in the first

package have been opened," the examiner respectfully disagrees. As indicated by the

applicant, Reiner "allocate[s] a cursor for the original query and cursors for the

corresponding subqueries." So, each query and subquery (a.k.a. embedded query) has

their own cursor. Consider a query with 4 subqueries. Two subqueries would have

their own package of cursors, two other subquerys would have their own package of

cursors, and the main query would have it's own cursor. In order to complete the main

query the subqueries must first be evaluated (otherwise the main query is incomplete).

As such, a first group of two inner queries are evaluated/executed and their associated

cursors are allocated. A second group of two other inner queries are also

evaluated/executed and their associated cursors are allocated. As such, the second

group of cursors is opened when the first group of cursors have been opened. Reiner

implies an example such as this by having a 1:1 relationship of cursors to

queries/subqueries and indicating and number of subqueries by reciting "cursors for the

corresponding subqueries (subcursors), as cited.

9.   The other claims argued merely because of a dependency on a previously

argued claim(s) in the arguments presented to the examiner, filed January 24th 2007,

are moot in view of the examiner's interpretation of the claims and art and are still

considered rejected based on their respective rejections from a prior Office action

(recited again below).

Response to Amendment

Specification

10.   In light of the applicant's respective arguments or respective amendments, the

previous specification objections to the specification have been withdrawn.

Drawings

11.   In light of the applicant's respective arguments or respective amendments, the

previous drawing objections to the drawings have been withdrawn.

Claim Rejections - 35 USC § 112

12.   In light of the applicant's respective arguments or respective amendments, some

of the previous 35 USC § 112 rejections to the claims have been withdrawn, however

new 35 USC § 112 rejections are warranted from the amendments to the claims.

13.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

14.   Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

15.   Claim 1 recites the limitation " the respective partial structured query language

statements " in line 9. There is insufficient antecedent basis for this limitation in the

claim. This rejection propagates downward through dependent Claims 2-8.

Claim Rejections - 35 USC § 102

16.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17.   Claims 1-3, 9-11, and 15 are rejected under 35 U.S.C. 102(b) as being

anticipated by U.S. Patent No. 6,032,153 (Sadiq et al.).

Claim 1 can be mapped to Sadiq as follows: "A method of dynamically preparing

a structured query language statement, [Sadiq, col. 4, lines 45-50] said method

comprising:

- receiving a request that affects an item; [Sadiq, col. 2, lines 2-6]

- identifying a respective type of the item; [Sadiq, col. 2, lines 2-6 with Sadiq, col.

  4, lines 13-15]

- retrieving a set of attributes [Sadiq, col. 6, lines 31-35] based on the type of the

  item [Sadiq, col. 6, lines 31-35 with Sadiq, col. 5, lines 14-21 with Sadiq, col. 4,

  lines 4-27] and a partial structured query language statement corresponding to

  the attributes; [Sadiq, col. 6, lines 31-35] and

- preparing the structured query language statement for the item based on the set

  of attributes and the respective partial structured query language statements in

  response to the request" [Sadiq, col. 6, lines 31-35].

Claim 2 can be mapped to Sadiq as follows: "The method of claim 1, wherein retrieving the set of attributes and the respective partial structured query language statement comprises retrieving a set of parameters that indicate a data structure for the item" [Sadiq, col. 4, lines 4-27].

Claim 3 can be mapped to Sadiq as follows: "The method of claim 1, wherein retrieving the set of attributes and the respective partial structured query language statement comprises retrieving a set of references for the structured query language statement" [Sadiq, col. 4, lines 4-27].

Claim 9 encompasses substantially the same scope of the invention as that of Claim 1, in addition to an apparatus and some means for performing the method steps of Claim 1. Therefore, Claim 9 is rejected for the same reasons as stated above with respect to Claim 1.

Claim 10 encompasses substantially the same scope of the invention as that of Claim 1, in addition to computer readable medium and some program code for performing the method steps of Claim 1. Therefore, Claim 10 is rejected for the same reasons as stated above with respect to Claim 1.

Claim 11 can be mapped to Sadiq as follows: "A system that dynamically prepares a structured query language statement, [Sadiq, col. 4, lines 45-50] said system comprising:

- a database that stores a plurality of items in a first table [Sadiq, col. 4, lines 4-27 with Sadiq, col. 3, lines 25-29] and stores information indicating attributes of each

type of item in a second table; [Sadiq, col. 4, lines 4-27 with Sadiq, col. 3, lines 25-29] and

- a processor [Sadiq, col. 3, lines 25-29 with Fig. 1, detail 24] configured by a set of program code to receive a request that affects an item stored in the first table of the database, [Sadiq, col. 2, lines 2-6 with Sadiq, col. 4, lines 4-27] identify a type of the item based on information in the first table, [Sadiq, col. 4, lines 13-15] retrieve attributes for the item from the second table based on the item's type, [Sadiq, col. 6, lines 31-35 with Sadiq, col. 5, lines 14-21 with Sadiq, col. 4, lines 4-27] determine a partial structured query language statement based on parsing the attributes, [Sadiq, col. 6, lines 31-35] and prepare the structured query language statement for the item based on the retrieved attributes and the respective partial structured query language statement in response to the request" [Sadiq, col. 6, lines 31-35].

Claim 15 can be mapped to Sadiq as follows: "The system of claim 11, wherein the set of program code comprises a set of embedded structured query language statements for preparing the structured query language statement for the item" [Sadiq, col. 6, lines 31-45].

Claim Rejections - 35 USC § 103

18.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

19.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

20.   Claims 4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent No. 6,032,153 (Sadiq et al.) in view of U.S. Patent Application Publication

No. 2003/0093433 (Seaman et al.).

        For **Claim 4**, Sadiq teaches: "The method of claim 1, wherein retrieving the set of

attributes and the respective partial structured query language statement comprises."

        Sadiq discloses the above limitation but does not expressly teach: "retrieving at

least a portion of an insert statement."

        With respect to Claim 4, an analogous art, Seaman, teaches: "retrieving at least

a portion of an insert statement" [Seaman, paragraph [0144]].

        It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Seaman and Sadiq before him/her to combine

Seaman with Sadiq because both inventions are directed towards dynamically

generating queries/SQL.

Seaman's invention would have been expected to successfully work well with

Sadiq's invention because both inventions use databases to query. Sadiq discloses a

method and system for maintaining persistence in a shared object system comprising

dynamically generating update queries. However, Sadiq does not expressly disclose

dynamically generating insert queries. Seaman discloses a method and system for

software application development and customizable runtime environment comprising

dynamically generating insert queries.

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Seaman and Sadiq before him/her to take the

dynamic generation of insert queries from Seaman and install it into the invention of

Sadiq, thereby offering the obvious advantage of being able not only to update the

database (modify) but update by adding (inserting) new records offering the ability to

add new records with Sadiq's invention.

For **Claim 20**, Sadiq teaches: "The system of claim 11, wherein the attributes

stored in the second table include."

Sadiq discloses the above limitation but does not expressly teach:

- "a structured query language statement that inserts a new item into the first

   table."

With respect to Claim 20, an analogous art, Seaman, teaches:

- "a structured query language statement that inserts a new item into the first table" [Seaman, paragraph [0144] with Sadiq, col. 6, lines 31-45 with Sadiq, col. 4, lines 4-27].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Seaman and Sadiq before him/her to combine Seaman with Sadiq because both inventions are directed towards dynamically generating queries/SQL.

Seaman's invention would have been expected to successfully work well with Sadiq's invention because both inventions use databases to query. Sadiq discloses a method and system for maintaining persistence in a shared object system comprising dynamicall generating update queries. However, Sadiq does not expressly disclose dynamically generating insert queries. Seaman discloses a method and system for software application development and customizable runtime environment comprising dynamically generating insert queries.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Seaman and Sadiq before him/her to take the dynamic generation of insert queries from Seaman and install it into the invention of Sadiq, thereby offering the obvious advantage of being able not only to update the database (modify) but update by adding (inserting) new records offering the ability to add new records with Sadiq's invention.

21.   Claims 5 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent No. 6,032,153 (Sadiq et al.) in view of U.S. Patent No. 5,950,188

(Wildermuth).

For **Claim 5**, Sadiq teaches: "The method of claim 1, wherein retrieving the set of

attributes and the respective partial structured query language statement comprises."

Sadiq discloses the above limitation but does not expressly teach: "retrieving

information that indicates access rights for the structured query language statement."

With respect to Claim 5, an analogous art, Wildermuth, teaches: "retrieving

information that indicates access rights for the structured query language statement"

[Wildermuth, col. 7, lines 1-21 with Wildermuth, cols. 7-8, lines 61-3].

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Wildermuth and Sadiq before him/her to combine

Wildermuth with Sadiq because both inventions are directed towards issuing

commands/queries to databases.

Wildermuth's invention would have been expected to successfully work well with

Sadiq's invention because both inventions use databases using SQL. Sadiq discloses a

method and system for maintaining persistence in a shared object system comprising

SQL. However, Sadiq does not expressly disclose retrieving information that indicates

access rights for the SQL statement. Wildermuth discloses a database system with

methods for executing system-created internal sql command statements comprising a

security flag indicative of access rights for the structured query language statements.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Wildermuth and Sadiq before him/her to take the security feature from Wildermuth and install it into the invention of Sadiq, thereby offering the obvious advantage of having a more secure system where "dangerous" system functions are not exposed to inappropriate users of the system.

For **Claim 19**, Sadiq teaches: "The system of claim 11, wherein the attributes stored in the second table includes."

Sadiq discloses the above limitation but does not expressly teach: "information indicating access rights for each type of item."

With respect to Claim 19, an analogous art, Wildermuth, teaches: "information indicating access rights for each type of item" [Wildermuth, col. 7, lines 1-21 with Wildermuth, cols. 7-8, lines 61-3].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Wildermuth and Sadiq before him/her to combine Wildermuth with Sadiq because both inventions are directed towards issuing commands/queries to databases.

Wildermuth's invention would have been expected to successfully work well with Sadiq's invention because both inventions use databases using SQL. Sadiq discloses a method and system for maintaining persistence in a shared object system comprising SQL. However, Sadiq does not expressly disclose retrieving information that indicates access rights for the SQL statement. Wildermuth discloses a database system with

methods for executing system-created internal sql command statements comprising a

security flag indicative of access rights for the structured query language statements.

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Wildermuth and Sadiq before him/her to take the

security feature from Wildermuth and install it into the invention of Sadiq, thereby

offering the obvious advantage of having a more secure system where "dangerous"

system functions are not exposed to inappropriate users of the system.

22.   Claim 6 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent No. 6,032,153 (Sadiq et al.) in view of U.S. Patent No. 6,219,676

(Reiner).

For **Claim 6**, Sadiq teaches: "The method of claim 1, wherein retrieving the set of

attributes and the respective partial structured query language statement comprises."

Sadiq discloses the above limitation but does not expressly teach:

- "...determining a timestamp for the set of attributes and the respective partial

    structured query language statement; and

- selectively retrieving the set of attributes and the respective partial structured

    query language statement from a cache based on the timestamp."

With respect to Claim 6, an analogous art, Reiner, teaches:

- "...determining a timestamp for the set of attributes and the respective partial

    structured query language statement; [Reiner, col. 7, lines 43-64 with Reiner, col.

    9, lines 27-45] and

- selectively retrieving the set of attributes and the respective partial structured

  query language statement from a cache based on the timestamp" [Reiner, col. 7,

  lines 43-64 with Reiner, col. 9, lines 27-45].

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Reiner and Sadiq before him/her to combine Reiner

with Sadiq because both inventions are directed towards accessing data.

Reiner's invention would have been expected to successfully work well with

Sadiq's invention because both inventions use data structures to access data. Sadiq

discloses a method and system for maintaining persistence in a shared object system

comprising SQL. However, Sadiq does not expressly disclose the cache data structure

or timestamps being used to access data. Reiner discloses a methodology for cache

coherency of web server data comprising a cache with timestamps for accessing data.

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Reiner and Sadiq before him/her to take the cache

data structure from Reiner and install it into the invention of Sadiq, thereby offering the

obvious advantage of achieving the fast lookup times (thereby fast data retrieval) gained

by using a cache data structure.

For **Claim 12**, Sadiq teaches: "The system of claim 11, further comprising."

Sadiq discloses the above limitation but does not expressly teach: "a cache that

stores a copy of at least a portion of the second table."

With respect to Claim 12, an analogous art, Reiner, teaches:

- "a cache that stores a copy of at least a portion of the second table" [Reiner, col. 7, lines 43-64 with Reiner, col. 9, lines 27-45].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Reiner and Sadiq before him/her to combine Reiner with Sadiq because both inventions are directed towards accessing data.

Reiner's invention would have been expected to successfully work well with Sadiq's invention because both inventions use data structures to access data. Sadiq discloses a method and system for maintaining persistence in a shared object system comprising SQL. However, Sadiq does not expressly disclose the cache data structure or timestamps being used to access data. Reiner discloses a methodology for cache coherency of web server data comprising a cache with timestamps for accessing data.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Reiner and Sadiq before him/her to take the cache data structure from Reiner and install it into the invention of Sadiq, thereby offering the obvious advantage of achieving the fast lookup times (thereby fast data retrieval) gained by using a cache data structure.

Claim 13 can be mapped to Sadiq (as modified by Reiner) as follows: "The system of claim 12, wherein the second table includes a timestamp for each row in the second table" [Reiner, col. 7, lines 43-64 with Reiner, col. 9, lines 27-45].

Claim 14 can be mapped to Sadiq (as modified by Reiner) as follows: "The system of claim 13, wherein the processor is configured to selectively retrieve

information from the cache or the second table based on the timestamp" [Reiner, col. 7,

lines 43-64 with Reiner, col. 9, lines 27-45].

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent No. 6,032,153 (Sadiq et al.) in view of U.S. Patent No. 5,742,806 (Reiner et

al.).

For **Claim 7**, Sadiq teaches: "The method of claim 1, wherein preparing the

structured query language statement comprises."

Sadiq discloses the above limitation but does not expressly teach: "opening a

first set of cursors for the structured query language statement."

With respect to Claim 7, an analogous art, Reiner, teaches: "opening a first set of

cursors for the structured query language statement" [Reiner, cols. 89-90, lines 65-5].

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Reiner and Sadiq before him/her to combine Reiner

with Sadiq because both inventions are directed towards accessing data in databases

using queries.

Reiner's invention would have been expected to successfully work well with

Sadiq's invention because both inventions use databases and queries. Sadiq discloses

a method and system for maintaining persistence in a shared object system comprising

SQL. However, Sadiq does not expressly disclose cursors. Reiner discloses an

apparatus and method for decomposing database queries for database management

system including multiprocessor digital data processing system comprising cursors with

queries.

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Reiner and Sadiq before him/her to take the cursors

from Reiner and install it into the invention of Sadiq, thereby offering the obvious

advantage of doing parallel operations to speed up the system of Sadiq.

Claim 8 can be mapped to Sadiq (as modified by Reiner) as follows: "The

method of claim 7, further comprising opening a second set of cursors when all of the

cursors in the first set have been opened" [Reiner, cols. 89-90, lines 65-5].

For **Claim 16**, Sadiq teaches: "The system of claim 15, further comprising a set

of files that include."

Sadiq discloses the above limitations but does not expressly teach: "a plurality of

cursors for the embedded structured query language statements."

With respect to Claim 16, an analogous art, Reiner, teaches: "a plurality of

cursors for the embedded structured query language statements" [Reiner, cols. 89-90,

lines 65-5].

It would have been obvious to one of ordinary skill in the art at the time of

invention having the teachings of Reiner and Sadiq before him/her to combine Reiner

with Sadiq because both inventions are directed towards accessing data in databases

using queries.

Reiner's invention would have been expected to successfully work well with

Sadiq's invention because both inventions use databases and queries. Sadiq discloses

a method and system for maintaining persistence in a shared object system comprising SQL. However, Sadiq does not expressly disclose cursors. Reiner discloses an apparatus and method for decomposing database queries for database management system including multiprocessor digital data processing system comprising cursors with queries.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Reiner and Sadiq before him/her to take the cursors from Reiner and install it into the invention of Sadiq, thereby offering the obvious advantage of doing parallel operations to speed up the system of Sadiq.

Claim 17 can be mapped to Sadiq (as modified by Reiner) as follows: "The system of claim 16, wherein the set of files comprise a first package of cursors that are opened by the embedded structured query language statements" [Reiner, cols. 89-90, lines 65-5].

Claim 18 can be mapped to Sadiq (as modified by Reiner) as follows: "The system of claim 17, wherein the set of files further comprises a second package of cursors that are opened by the embedded structured query language statements when all of the cursors in the first package have been opened" [Reiner, cols. 89-90, lines 65-5].

Conclusion

23.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Applicant is advised that, although not used in the rejections

above, prior art cited on the PTO-892 form and not relied upon is considered materially

relevant to the applicant's claimed invention and/or portions of the claimed invention.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Brent S. Stace whose telephone number is 571-272-

8372 and fax number is 571-273-8372. The examiner can normally be reached on M-F

9am-5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

Brent Stace *B. S.*